

**PATENT COOPERATION TREATY**  
**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
 (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>63274</b>	<b>FOR FURTHER ACTION</b>	
		See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/053523</b>	International filing date ( <i>day/month/year</i> ) <b>15.12.2004</b>	Priority date ( <i>day/month/year</i> ) <b>19.12.2003</b>
International Patent Classification (IPC) or national classification and IPC <b>H04M1/725, G06F1/00</b>		
Applicant <b>THALES</b>		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <b>5</b> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/053523

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 

This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
 
  - international search (Rule 12.3 and 23.1(b))
  - publication of the international application (Rule 12.4)
  - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
 

the international application as originally filed/furnished  
 the description:  
 pages 1-14 \_\_\_\_\_ as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the claims:  
 nos. 1-8 \_\_\_\_\_ as originally filed/furnished  
 nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
 nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the drawings:  
 sheets 1-3 \_\_\_\_\_ as originally filed/furnished  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3.  The amendments have resulted in the cancellation of:
 

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/053523

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims <u>1, 2, 4-8</u>	YES
	Claims _____	NO
Inventive step (IS)	Claims _____	YES
	Claims <u>1, 2, 4-8</u>	NO
Industrial applicability (IA)	Claims <u>1-8</u>	YES
	Claims _____	NO

## 2. Citations and explanations (Rule 70.7)

## 1. Reference is made to the following documents:

- D1: US 2003/229774 A1 (GOODMAN STEVEN DALE ET AL) 11 December 2003 (2003-12-11)  
 D2: US2003/014663 A1 (KIIVERI ANTTI ET AL) 16 January 2003 (2003-01-16)

## 2. INDEPENDENT CLAIM 1

2.1 The present application fails to meet the requirements of PCT Article 33(1), since the subject matter of claim 1 does not involve an inventive step as defined by PCT Article 33(3).

2.1.1 D1, which is considered to be the prior art closest to the subject matter of claim 1, describes (the references between parentheses apply to said document):

- (a) A method for detecting and/or preventing the modification of on-board software in a programmable memory within a system including a hard core containing hardware security functions for verifying the integrity of a soft core including a programmable memory, said system comprising a local data interface (paragraphs 13,

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/053523**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

15 and 18).

- (b) In the event that the signal received on the local data interface is not valid, the system is put into a non-operational state (paragraph 20).
- (c) In the event that the signal received on the local data interface is a disconnection signal or that there is no signal, a secure start-up procedure is initiated during which the control and self-test functions of the hard core are run (paragraphs 27 and 28).
- (d) In the event that the signal received is a valid start-up signal, if the system is in a development mode, it is rendered operational; if the system is in an operational processing mode and if the signal is a test signal, then at least one of the essential functions of the operational processing is deactivated (paragraphs 21, 29).

2.1.2 Consequently, the subject matter of claim 1 differs from the teaching of D1 in that the control functions contain the integrity test of the reprogrammable memory, along with the actions corresponding to each result.

2.1.3 The problem that the present invention is intended to solve can therefore be considered to be that of improving the security of the system.

2.1.4 The solution proposed in claim 1 of the present application is not considered inventive (PCT Article 33(3)) for the following reasons:

- (a) the problem addressed is a common problem in the

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

International application No.

PCT/EP2004/053523

**Box No. V****Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

technical field;

(b) a person skilled in the art faced with the above problem would be prompted to consult the documents that provide a solution thereto, such as D2, paragraphs 1 and 33, and thereby arrive at the solution proposed in claim 1.

2.1.5 Consequently, a person skilled in the art seeking to solve the stated problem would combine the features described in D1 and D2 without exercising inventive skill. The solution proposed in independent claim 1 therefore cannot be considered to involve an inventive step (PCT Article 33(3)).

**3. INDEPENDENT CLAIM 4**

The previous objection is also applicable to claim 4, *mutatis mutandis*, since said claim relates to the electronic unit implementing the method of claim 1.

**4. DEPENDENT CLAIMS 2 and 5 to 8**

Said claims contain no features which, when combined with the features of any one of the claims to which they refer, meet the PCT requirements of novelty and inventive step (PCT Article 33(2) and (3)).